

## CLAIMS

1.           Restraint device (1) for a seat belt (2) in a vehicle, comprising a housing (10) for guiding said seat belt (2) and for accommodating an energy-absorbing element (12) adapted to cooperate with said seat belt (2) so as to absorb energy when a predetermined retardation condition of the vehicle is fulfilled, characterized in that said device (1) comprises means (15, 16, 23, 27, 28) for attaching the energy-absorbing element (12) to said seat belt (2) when said condition is fulfilled, said energy-absorbing element (12) being adapted to be attached in a lamellar manner to said seat belt (2) along a predetermined length thereof.
2.           Restraint device (1) according to claim 1, characterized in that the energy-absorbing element (12) comprises an elongated ribbon (12) being partly wound around an axis (11) which is supported in said housing (10).
3.           Restraint device (1) according to claim 2, characterized in that said axis (11) is arranged generally perpendicular to the longitudinal direction of the seat belt (2).
4.           Restraint device (1) according to claim 2 or 3, characterized in that the ribbon (12) is adapted to unwind in a direction that is common with the motion of the seat belt (2) when said condition is fulfilled, and where the part (12a) of said ribbon (12) being wound about said axis (11) exercises a force counteracting said motion.
5.           Restraint device (1) according to any one of claims 2-4, characterized in that the ribbon (12) is made of a plastic material.
6.           Restraint device (1) according to any one of claims 2-4, characterized in that the ribbon (12) is made of a metal material.

7. Restraint device (1) according to any one of the preceding claims, characterized in that the means (15, 16, 23, 27, 28) for attaching the energy-absorbing element (12) to said seat belt (2) comprises a first plate (15) and a second plate (16), with the energy-absorbing element (12) and the seat belt (2) being guided between them, and an actuating device (27, 28) for bringing said plates (15, 16) together in the event of said condition being fulfilled.
- 10 8. Restraint device (1) according to claim 7, characterized in that said actuating device (27, 28) comprises an explosive charge (27) and an ignition device (28) for igniting said explosive charge (27) in the event of said condition.
- 15 9. Restraint device (1) according to any one of claims 7 or 8, characterized in that the first plate (15) is equipped with a predetermined number of nails (23) directed towards the second plate (16), which nails (23) are adapted to penetrate the energy-absorbing element (12), the seat belt (2) and to be fastened in the second plate (16) during said bringing together of said plates (15, 16).
- 20 10. Restraint device according to any one of claims 7-9, characterized in that the actuating device (27, 28) is arranged so as to be activated depending on the operation of a seat belt (2) pre-tensioner (8) in said vehicle.
- 25 11. Restraint device (1) according to any one of the preceding claims, characterized in that said housing (10) comprises a first chamber (10a) for accommodating said means (15, 16, 23, 27, 28) for attaching the energy-absorbing element (12) to said seat belt (2), and a second chamber (10b) for accommodating a part (12a) of said energy-absorbing element (12), said first chamber (10a) and second chamber (10b)
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being connected by means of a slot (14) through which said energy-absorbing element (12) and said seat belt (2) extend.